

What is claimed is:

1. A multi-directional laminate flooring panel for use in constructing a floor, said panel comprising:

a top surface, a bottom surface and sides extending between the top and bottom surfaces, wherein said sides have identical grooved profiles.

2. A panel as claimed in claim 1, wherein the thickness of the panel ranges from about .240 inches to about .320 inches.

3. A panel as claimed in claim 1, wherein a groove of each side extends substantially the entire length of the side.

4. A panel as claimed in claim 1, wherein a groove of each side extends to and intersects with a groove of an adjacent side.

5. The panel as claimed in claim 1, further comprising channels in the bottom surface of said panel, wherein a channel extends parallel to each side.

6. The panel of claim 5, wherein the channels in the bottom surface of said panel extend substantially the entire length of the sides.

7. The panel of claim 5, wherein each channel in the bottom surface of said panel extends to and intersects with another channel.

8. The panel of claim 1, wherein the panel has a geometry selected from the group of geometries consisting of a square, rectangle, triangle, pentagon, hexagon and octagon.

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5 9. A panel as claimed in claim 1, further comprising a middle substrate between the top and bottom surfaces; wherein the middle substrate of the panel comprises a material selected from the group of materials consisting of medium density fiberboard, high density fiberboard, wood/plastic compositions, woods, ceramics, unfilled plastics, filled plastics, closed-cell rigid foams, and combinations thereof.

10 10. A multi-directional laminate flooring system comprising:

at least two panels, wherein each panel comprises a top surface, a bottom surface and sides extending between the top and bottom surfaces, wherein said sides have identical recessed profiles; and

15 a connector separate from said at least two panels for connecting the at least two panels together to form a floor.

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20 11. A system as claimed in claim 10, wherein the thickness of each panel of said at least two panels ranges from about .240 inches to about .320 inches.

12. A system as claimed in claim 10, wherein each recessed profile comprises a groove.

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13. A system as claimed in claim 10, wherein each recessed profile extends substantially the entire length of the side.

14. A system as claimed in claim 10, wherein each recessed profile extends to and intersects with a recessed profile of another side.

15. A system as claimed in claim 10, further comprising channels in the bottom surface of each panel that correspond to the sides of said panel.

10 16. The system of claim 15, wherein one channel in the bottom surface of each panel extends substantially the entire length of the corresponding side.

17. The system of claim 15, wherein one channel in the bottom surface of each panel extends to and intersects with another channel.

15 18. The system of claim 10, wherein each panel has a geometry selected from the group of geometries consisting of a square, rectangle, triangle, pentagon, hexagon and octagon.

19. The system of claim 10, wherein a connector is a longitudinal connector.

20 20. The system of claim 10, wherein a connector is a transverse connector.

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21. A system as claimed in claim 10, wherein each panel further comprises a middle

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substrate between said top and bottom surfaces, wherein the middle substrate comprises a material selected from the group of materials consisting of medium density fiberboard, high density fiberboard, wood/plastic compositions, woods, ceramics, unfilled plastics, filled plastics, closed-cell rigid foams, and combinations thereof.

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22. A multi-directional laminate flooring panel comprising:

a top surface, a bottom surface and sides extending between the top and bottom surfaces, wherein each side has a groove and the bottom surface has a channel extending parallel to each groove.

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23. A method for constructing a flooring surface on a subfloor support, said method comprising:

placing a first panel on the subfloor support, wherein the first panel has a top surface, a bottom surface and sides extending between the top and bottom surfaces, wherein each side has a groove;

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mating a connector with a groove of the first panel;

placing a second panel on the subfloor support; wherein the second panel has a top surface, a bottom surface and sides extending between the top and bottom surfaces, wherein each side has a groove; and

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mating the connector with a groove of the second panel, wherein the mated connector is below the top surface of the first and second panels.

24. A method as claimed in claim 23, further comprising positioning the first and second panels flat on the subfloor support during said mating of the first and second panels.

25. A method for constructing a flooring surface, said method comprising:

5 mating a connector with a groove of a first panel, wherein the first panel has a top surface, a bottom surface and sides extending between the top and bottom surfaces, wherein each side has a groove;

10 positioning a second panel in the same plane as the first panel, wherein the second panel has a top surface, a bottom surface and sides extending between the top and bottom surfaces, wherein each side has a groove; and

mating the connector with a groove of the second panel while the first and second panels are in the same plane, wherein the mated connector is below the top surfaces of the first and second panels.

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